

In the claims:

Please amend claim 9 as follows:

Please add claims 20-24 as follows:

1. (WITHDRAWN) A fuel cell stack comprising a fuel cell unit composed of a solid polymer ion exchange membrane interposed between an anode electrode and a cathode electrode, and separators for supporting said fuel cell unit interposed therebetween, said fuel cell units and said separators being stacked in a horizontal direction, said fuel stack including:

a communication hole which is provided to penetrate through said separator, for allowing a reaction gas containing a fuel gas or an oxygen-containing gas to flow therethrough;

gas flow passages which communicate with said communication hole and which are provided in electrode power-generating surfaces of said separators while meandering in said horizontal direction, for supplying said reaction gas to said horizontal direction, for supplying said reaction gas to said anode electrode or said cathode electrode; and

a porous water-absorbing tube which is arranged in said communication hole, for discharging water.

2. (WITHDRAWN) The fuel cell stack according to claim 1, wherein:

said gas flow passages are provided in a direction of gravity while meandering in said horizontal direction; and

an outlet of said porous water-absorbing tube is set at a position higher than said communication hole for said reaction gas.

3. (WITHDRAWN) The fuel cell stack according to claim 1, wherein said porous water-absorbing tube is installed at a position separated from said gas flow passages downwardly in said direction of gravity in said communication hole.

4. (WITHDRAWN) The fuel cell stack according to claim 1, wherein:

said porous water-absorbing tube includes a plurality of wire members wound around an outer circumference of a core member ; and

a space is formed by bundling said wire membranes.

5. (WITHDRAWN) The fuel cell stack according to claim 1, wherein said porous water-absorbing tube includes:

a pipe member having a plurality of holes formed at its outer circumference; and
a plurality of wire members accommodated in said pipe member.

6. (WITHDRAWN) The fuel cell stack according to claim 1, wherein said porous water-absorbing tube includes a water-absorbing member which is arranged on a lower side in a direction of gravity of said communication hole.

7. (WITHDRAWN) The fuel cell stack according to claim 1, wherein at least one of said outlet side communication holes for said reaction gas is provided with a discharge hole for supplying said reaction gas at a deep portion as viewed from a discharge port.

8. (WITHDRAWN) The fuel cell stack according to claim 7, wherein said inlet side communication hole and said outlet side communication hole are connected with a bypass flow passage at a deep portion as viewed from said discharge port of said outlet side communication hole, and an outlet of said bypass flow passage is constructed at said discharge hole which is open at said deep portion of said outlet side communication hole.

9. (CURRENTLY AMENDED) A fuel cell stack comprising a plurality of fuel cell units and a plurality of separators interposed between each fuel cell unit, each fuel cell unit composed of a solid polymer ion exchange membrane interposed between an anode electrode and a cathode electrode, and a pair of separators for supporting each of said fuel cell units ~~unit interposed therebetween~~, said fuel cell units and said separators being stacked in a horizontal direction, said fuel cell stack including:

an inlet side communication hole which is provided to penetrate through said separators, for supplying a reaction gas containing a fuel gas or an oxygen-containing gas;

an outlet side communication hole for discharging a reacted gas corresponding to said reaction gas;

an additional plate disposed adjacent to an end of the fuel cell units and separators in a stacking direction; and

a discharge hole ~~which is provided in the additional plate and in communication with~~
at a deep portion of ~~at least one of the outlet side communication holes~~ hole opposite a
discharge port, for supplying ~~said reaction gas to the outlet side communication hole.~~

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10. (ORIGINAL) The fuel cell stack according to claim 1, wherein a supply port of said
inlet side communication hole and said discharge port of said outlet side communication hole
are provided on an identical side.

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11. (ORIGINAL) The fuel cell stack according to claim 9, wherein said inlet side
communication hole and said outlet side communication hole are connected with a bypass
flow passage at a deep portion as view from a supply port of said inlet side communication
hole and at a deep portion as viewed from said discharge port of said outlet side
communication hole, and an outlet of said bypass flow passage is constructed as said
discharge hole which is open at said deep portion of said outlet side communication hole.

4 3
12. (ORIGINAL) The fuel cell stack according to claim 11, wherein a number of flow
passages communicating with said inlet side communication hole, of said bypass flow
passage is set to be larger than a number of flow passages communicating with said outlet
side communication hole.

5 3
13. (ORIGINAL) The fuel cell stack according to claim 11, wherein a position of an inlet
hole of said bypass flow passage is set to be lower than a bottom of said inlet side
communication hole.

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14. (ORIGINAL) The fuel cell stack according to claim 1, wherein a position of said
discharge hole is set at a position lower than a lowermost position of reaction gas flow
passages provided in electrode power-generating surfaces of said separators.

15. (WITHDRAWN) A fuel cell stack comprising a plurality of fuel cell units each
composed of a solid polymer ion exchange membrane interposed between an anode electrode
and a cathode electrode, said plurality of fuel cell units being stacked in a horizontal direction
with separators intervening therebetween, said fuel cell stack including:

an inlet side communication hole which is provided to penetrate through said separators, for supplying a reaction gas containing a fuel gas or an oxygen-containing gas;

an outlet side communication hole for discharging a reacted gas corresponding to said reaction gas; and

a suction member which is provided at the inside of said inlet side communication hole or said outlet side communication hole and which has an opening for sucking retained water.

16. (WITHDRAWN) The fuel cell stack according to claim 15, wherein said inlet side communication hole or said outlet side communication hole, which is provided with said suction member, is set at lower positions in a direction of gravity in planes of said separators.

17. (WITHDRAWN) The fuel cell stack according to claim 15, wherein an outlet side flow passage of said suction member is connected to a downstream side of a back pressure valve provided in a flow passage for said gas discharged from said outlet side communication hole.

18. (WITHDRAWN) The fuel cell stack according to claim 17, wherein an ejector section is formed with a throttle section in said outlet side flow passage of said suction member.

19. (WITHDRAWN) The fuel cell stack according to claim 15, wherein said suction member is a drainage pipe, and a suction hole, which serves as said opening, is open downwardly at a lower wall at an end portion of said drainage pipe.

7 20. (NEW) The fuel cell stack according to claim 9, wherein the additional plate comprises a bypass plate including a bypass flow passage for connecting the inlet side communication hole to the discharge hole.

8 21. (NEW) The fuel cell stack according to claim 20, wherein the bypass plate is disposed between an end plate of the fuel cell stack and the fuel cell units and separators.

9 22. (NEW) The fuel cells stack according to claim 9, wherein the additional plate comprises an end plate of the fuel cell stack.

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23. (NEW) The fuel cells stack according to claim ⁹22, further comprising bypass piping outside of the end plate for connecting the inlet side communication hole and the discharge hole.

11
24. (NEW) A fuel cell stack comprising a plurality of fuel cell units and a plurality of separators interposed between each fuel cell unit, each fuel cell unit composed of a solid polymer ion exchange membrane interposed between an anode electrode and a cathode electrode, and a pair of separators supporting each of said fuel cell units, said fuel cell units and said separators being stacked in a horizontal direction, said fuel cell stack including:

an inlet side communication hole which is provided to penetrate through said separators, for supplying a reaction gas containing a fuel gas or an oxygen-containing gas;

an outlet side communication hole which is provided to penetrate through said separators, for discharging a reacted gas corresponding to said reaction gas;

a discharge port which is provided at a first end of the outlet side communication hole; and

a discharge hole which is provided at a second end of the outlet side communication hole opposite the discharge port, for supplying reaction gas to the outlet side communication hole through the second end.